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Serum Lipid and Thyroid Function Test was Correlated with BMD in Old Aged Women

Juhyun Youn¹, Sara Lee¹, Byung-Koo Yoon², Hoon Choi³, Byung Moon Kang⁴, Yoon Suk Jang⁴,

¹ Ewha Womans University, Seoul, Republic of Korea ² Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea ³ Inje University, College of Medicine Sanggye Paik Hospital, Seoul, Republic of Korea ⁴ University of Ulsan, Asan Medical Center, Seoul, Republic of Korea

Objective : To investigate serum marker which are correlated with the low bone mineral density (BMD) in old aged (≥ 65 years) Korean women.

Methods : Medical records of 154 postmenopausal women aged over 65 years who visited health care clinic of our hospital were reviewed retrospectively. We investigated women's baseline characteristics including age, height, weight, body mass index (BMI) and laboratory findings including serum lipid profile, thyroid hormone, calcium, phosphorus, bone alkaline phosphatase. Bone mineral density (BMD) was measured with DXA (Prodigy; GE-lunar, Houston, TX, USA). The correlation between laboratory test result and BMD was analyzed using R statistical package (version 2.13.1).

Results : Mean age was 69.77 ± 6.45 years and mean BMI was 24.46 ± 3.63 (kg/m²). The low BMD including osteoporosis and osteopenia was significantly associated with age, Triiodothyronine (T3) and HDL-cholesterol level. The low femur BMD was associated with serum HDL-cholesterol level. The lumbar BMD was significantly correlated with serum-cholesterol, HDL. T3 was negatively correlated with lumbar and femur BMD and T4 was negatively correlated with femur BMD. TSH was no significant relationship with BMD.

Conclusion : The levels of serum HDL-cholesterol and T3 could be used as indirect markers for low BMD in old aged women.

Keywords : Bone, Lipid, Old age, Thyroid hormone

0044

Bone Densitometry Service and the Post-fracture Care Gap in Hong Kong: How Bad is the Situation.

W.H.A. Ho, S.H. Wong, Caritas Medical Centre, Hong Kong, Hong Kong

Introduction: Patients who sustain an osteoporotic fracture are at increased risk of sustaining further osteoporotic fracture. There are international guidelines to close this post-fracture care gap but not in Hong Kong. Older patients presenting with fractures should be offered assessment for osteoporosis by axial bone densitometry. We report the current situation and practice of using bone densitometry assessment after osteoporotic hip fracture.

Methods: We retrieved patients with new osteoporotic hip fractures age 65 or above with DXA performed within one year after fracture, admitted from 1st Jan 2012 to 30th June 2014 using Hospital Authority CDARS.

Results: 11397 osteoporotic hip fracture patients were included. Only 398 patients (3.49%) received DXA within one year after fracture. Among the group with DXA performed, 69% were from two Hospitals. The other 11 hospitals contribute the remaining 31%.

Discussion and conclusion: There is a huge post-fracture care gap in secondary prevention for osteoporotic hip fracture patient in Hong Kong. Majority of the patients in Hong Kong are neither diagnosed

nor being tested for osteoporosis and remained untreated. The Government needs to allocate more resources to implement the best practices framework to those high risk post-hip fracture patients before they go on to break another bone. By reducing the number of subsequent osteoporotic fractures, the Government can get significant cost savings that can be utilized in other valuable healthcare program.

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Fracture Risk of Adjuvant Therapies in Young Breast Cancer Patients: A Population-Based Study

Chun-Hung Chang¹, Shaw-Ji Chen², Chieh-Yu Liu³,
¹ China Medical University Hospital, Taichung, Taiwan ² Mackay Memorial Hospital, Taitung, Taiwan ³ National Taipei University of Nursing and Health Sciences, Taipei, Taiwan

Introduction: Breast cancer survivors have an increased risk of bone fracture. But the risk among young patients with adjuvant therapies remains unknown. This population-based study is aimed to assess the incidence and risk of fracture among young (age of 20 to 39 years) breast cancer patients who received adjuvant therapies.

Materials and Methods: From January 2001 to December 2007, 5,146 newly diagnosed breast cancer patients were enrolled from the National Health Insurance Research Database (NHIRD) in Taiwan. Patients were observed for a maximum of 6 years to determine the incidence of newly onset fracture. Kaplan Meier and Cox regression analyses were used to evaluate the risk of fracture in young breast cancer patients who received adjuvant treatments.

Results: Of the total 5,146 young (age of 20 to 39 years) breast cancer patients, the Cox multivariate proportional hazards analysis showed that AIs, radiotherapy, and monoclonal antibodies were significantly associated with a high risk of fracture. Moreover, patients who received AIs for more than 180 days had a high hazard ratio (HR) of 1.77 (95% CI = 0.68–4.57), and patients who received more than four radiotherapy visits had a high HR of 2.54 (95% CI = 1.07–6.06). Under the site-specific analysis, young breast cancer patients who received AIs had the highest risk of hip fracture (HR = 8.520, 95% CI = 1.711–42.432, $p < 0.04$), whereas patients who received radiotherapy had the highest risk of vertebral fracture (HR = 5.512, 95% CI = 1.847–16.451, $p < 0.01$).

Discussion/Conclusions: Young breast cancer patients who are receiving AIs, radiotherapy or monoclonal antibody need to be more careful for preventing fracture events. Breast cancer treatment plans are suggested to incorporate fracture prevention interventions.

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The Effect of Cemented and Uncemented Implants on the Measurement of Proximal Femur BMD

Yue Ding, Guangtao Fu, Changchuan Li, Wei Liu, Sun Yat-Sen University Sun Yat-Sen Memorial Hospital, GuangZhou, China

Objective: The study was performed to test the hypothesis that cemented and uncemented implants influenced the measurement of proximal femur BMD.

Methods: 10 patients underwent THA with cemented or uncemented implants due to developmental dysplasia of the hip, femoral neck fracture or femoral head necrosis from January 2015 to July 2015 were included. The patients' BMD of L1-L4 and femoral neck were measured preoperative. We measured the BMD of proximal femur